

ACO 2603 P1US

**LISTING OF THE CLAIMS**

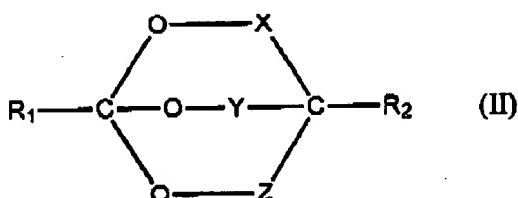
1. (Currently Amended) A coating composition comprising a compound comprising at least one bicyclo-orthoester group having latent hydroxyl groups and at least one hydroxyl reactive functional group represented by the following formula I



wherein

x and y are independently selected from 1 to 10;

A has the structure according to the following formula II



wherein

X and Z are independently from each other selected from linear or branched alk(en)ylene groups with 1-4 carbon atoms optionally containing an oxygen or a nitrogen atom;

Y is nothing or is selected independently of X and Z from linear or branched alk(en)ylene groups with 1-4 carbon atoms optionally containing an oxygen or a nitrogen atom;

one of R<sub>1</sub> and R<sub>2</sub> is a monovalent radical of hydrogen, hydroxyl or alk(en)yl groups having 1-30 carbon atoms which are linear or branched and optionally contains oxygen atoms, nitrogen atoms, sulphur atoms, and/or ester groups;  
the other of R<sub>1</sub> and R<sub>2</sub> is a divalent radical with alk(en)ylene groups having 1-10 carbon atoms which groups are linear or branched and optionally contain oxygen atoms, nitrogen atoms, sulphur atoms, and/or ester groups;

ACO 2603 P1US

B is a divalent radical of aromatic, aliphatic, cycloaliphatic, and araliphatic hydrocarbon groups having 1-40 carbon atoms which groups are linear or branched and optionally contain oxygen atoms, nitrogen atoms, sulphur atoms, phosphorus atoms, sulphone groups, sulphony groups, amine groups, amide groups, urea groups, urethane groups, and/or ester groups;

ester groups;

ether groups;

amide groups;

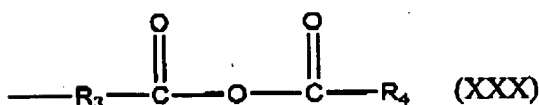
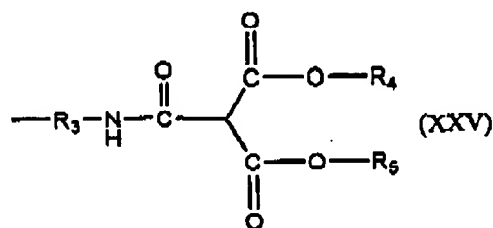
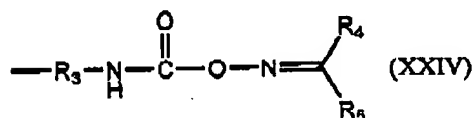
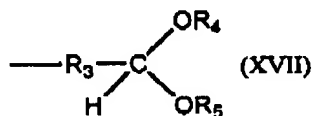
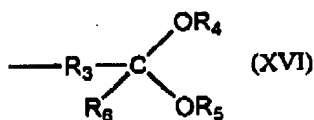
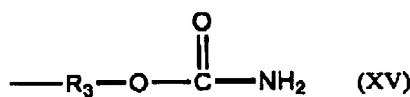
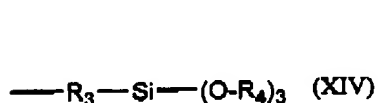
thioester groups;

thioamide groups;

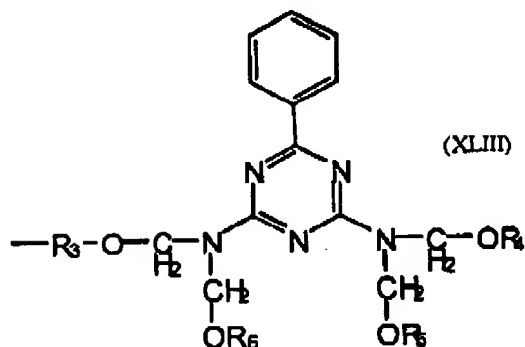
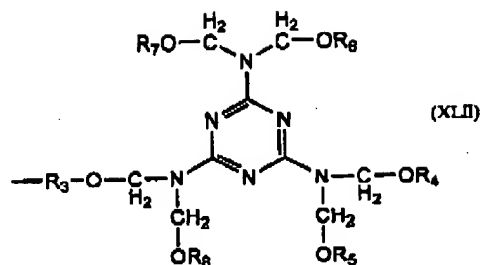
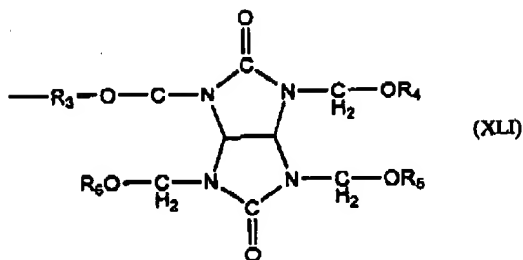
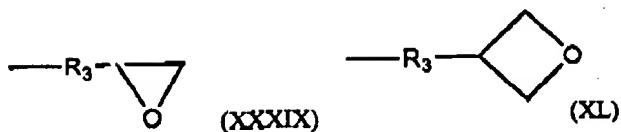
urethane groups; and or

urea groups;

C is a hydroxyl reactive functional group selected from the following formulae:



ACO 2603 P1US



wherein  $R_3$  is selected from the group of alk(en)ylene groups having 1-10 carbon atoms which groups are linear or branched and optionally contain one or more ether, ester, urea, urethane, amide, and/or amine groups, and  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$  and  $R_8$  are independently from each other selected from the group of alk(en)yl groups having 1-10 carbon atoms which groups are linear or branched.

2. (Original) A coating composition according to claim 1 wherein X, Y, and Z are methylene.

ACO 2603 P1US

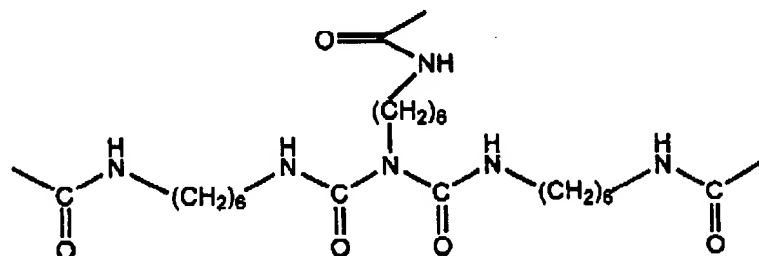
3. Original) A coating composition according to claim 1 wherein one of  $R_1$  and  $R_2$  is a monovalent radical selected from the group of linear or branched alk(en)yl groups having 1-20 carbon atoms.

4. (Previously Presented) A coating composition according to claim 3 wherein the monovalent radical is methyl or ethyl.

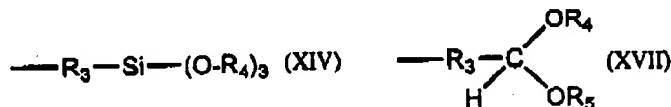
5. (Original) A coating composition according to claim 3 wherein the other of  $R_1$  and  $R_2$  is  $-O-C_{1-10}-$ .

6. (Original) A coating composition according to claim 1 wherein B is derived from an organic polyisocyanate compound.

7. (Original) A coating composition according to claim 6 wherein the organic polyisocyanate is the biuret of hexamethylene diisocyanate and B has the following chemical structure

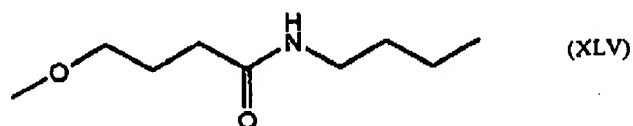
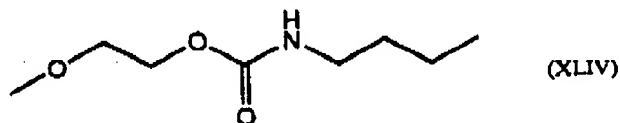


8. (Original) A coating composition according to claim 1 wherein C is selected from the formulae XIV and XVII

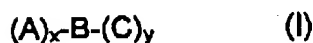


ACO 2603 P1US

9. (Original) A coating composition according to claim 8 wherein  $R_4$  and  $R_5$  are methyl or ethyl and  $R_3$  is a group selected from the following formulae XLIV-XLVI



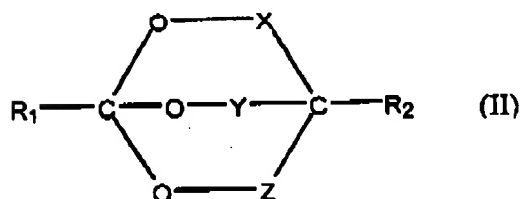
10. (Currently Amended) A coating composition comprising a first compound comprising at least one bicyclo-orthoester group and at least one other functional group wherein said first compound is either 4-ethyl-1-(ethoxycarbonylmethyl)2,6,7-trioxabicyclo[2.2.2]octane or represented by the following formula I



wherein

x and y are independently selected from 1 to 10;

A has the structure according to the following formula II



wherein

- 6 -

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ACO 2603 P1US

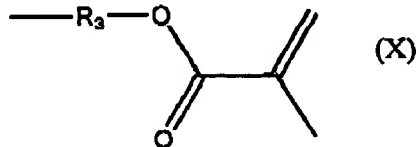
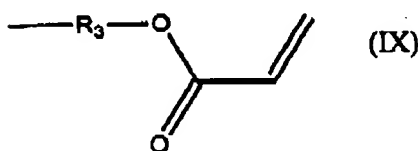
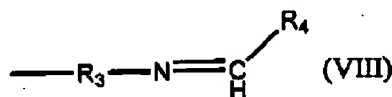
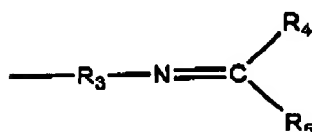
X and Z are independently from each other selected from linear or branched alk(en)ylene groups with 1-4 carbon atoms optionally containing an oxygen or a nitrogen atom;

Y is nothing or is selected independently of X and Z from linear or branched alk(en)ylene groups with 1-4 carbon atoms optionally containing an oxygen or a nitrogen atom;

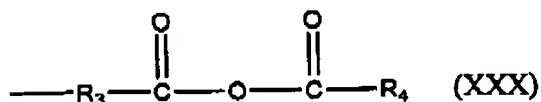
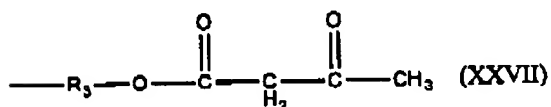
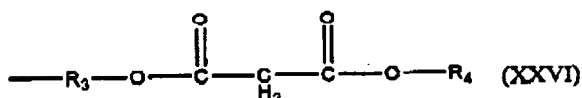
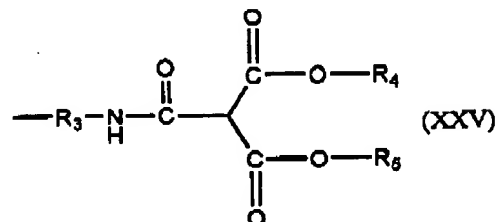
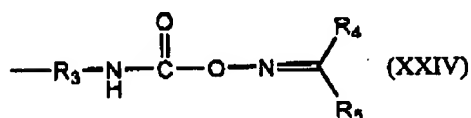
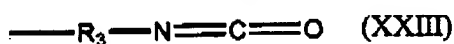
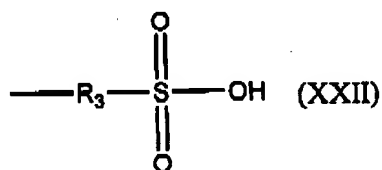
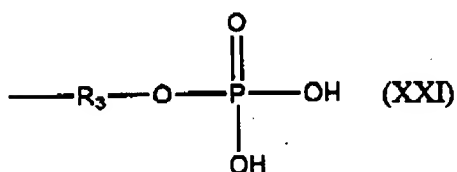
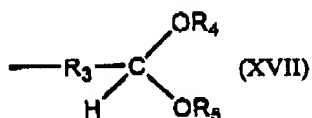
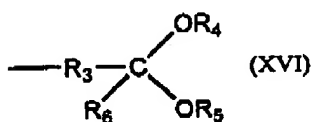
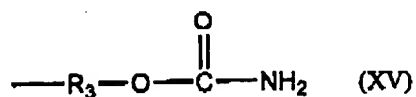
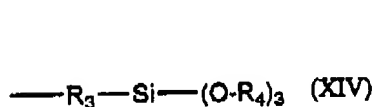
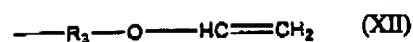
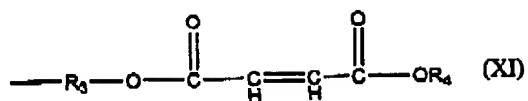
one of R<sub>1</sub> and R<sub>2</sub> is a monovalent radical of hydrogen, hydroxyl or alk(en)yl groups 1-30 carbon atoms which are linear or branched and optionally contains oxygen atoms, nitrogen atoms, sulphur atoms, and/or ester groups; the other of R<sub>1</sub> and R<sub>2</sub> is a divalent radical with alk(en)ylene groups having 1-10 carbon atoms which groups are linear or branched and optionally contain oxygen atoms, nitrogen atoms, sulphur atoms, and/or ester groups;

B is a divalent radical of aromatic, aliphatic, cycloaliphatic, and araliphatic hydrocarbon groups having 1-40 carbon atoms which groups are linear or branched and optionally contain oxygen atoms, nitrogen atoms, sulphur atoms, phosphorus atoms, sulphone groups, sulphony groups, amine groups, amide groups, urea groups, urethane groups, and/or ester groups; ester groups; ether groups; amide groups; thioester groups; thioamide groups; urethane groups; and/or urea groups;

C is a functional group selected from the following formulae:



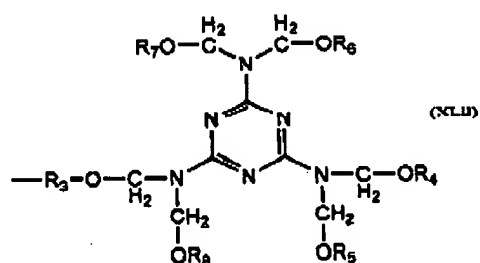
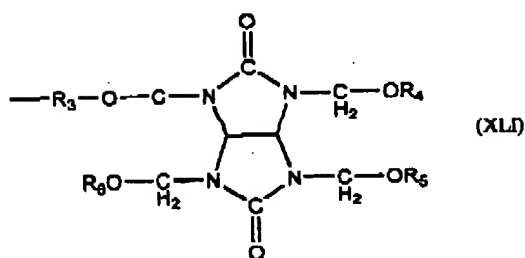
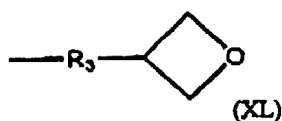
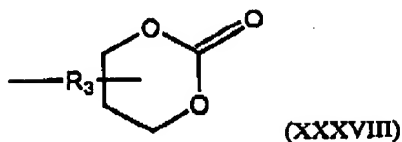
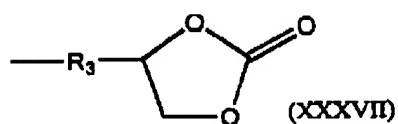
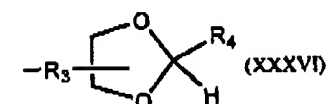
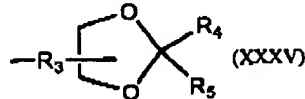
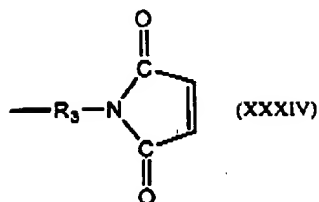
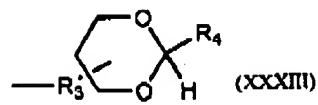
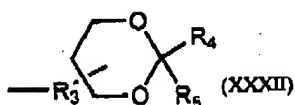
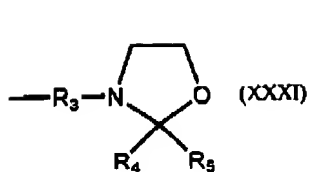
ACO 2603 P1US



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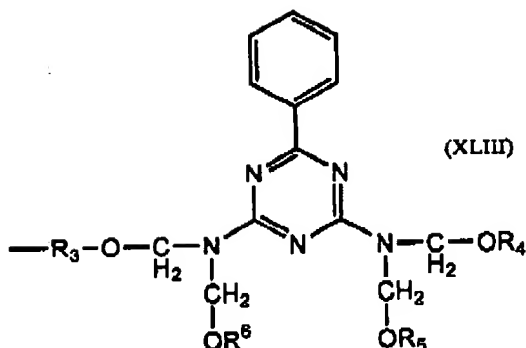
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ACO 2603 P1US





ACO 2603 P1US



wherein  $R_3$  is an alk(en)ylene group having 1-10 carbon atoms which groups are linear or branched and optionally contain ether, ester, urea, urethane, amide, and/or amine groups, and  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$  and  $R_8$  are independently from each other selected from alk(en)yl groups having 1-10 carbon atoms which groups are linear or branched,

wherein the coating composition comprises a second compound comprising at least two hydroxyl reactive groups of isocyanate, epoxy, acetal, carboxyl, anhydride, and/or alkoxy silane groups, or the second compound is an amino resin.

11. (Previously Presented) A coating composition according to claim 10, wherein the second compound comprising at least two hydroxyl reactive groups is an aliphatic, cycloaliphatic or aromatic compound comprising at least two isocyanate groups or adducts thereof.

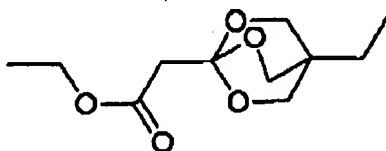
12. (Previously Presented) A coating composition according to claim 11 wherein the second compound comprising at least two hydroxyl reactive groups is an isocyanurate.

13. (Previously Presented) A process for curing a coating composition according to claim 1 wherein the latent hydroxyl groups of the bicyclo-orthoester groups are deblocked in the presence of water, optionally in the presence of a first catalyst.

ACO 2603 P1US

and reacted with the hydroxyl-reactive groups of the compound, optionally in the presence of a second catalyst.

14. (Currently Amended) A process for the preparation of a compound comprising at least one bicyclo-orthoester group and at least one other functional group according to the formula



in which a compound having at least one corresponding oxetane group is converted in the presence of a catalytic amount of dibutyl tin oxide at a temperature above 180°C.

15. (Canceled)

16. (Previously Presented) A coating composition according to claim 10 wherein X, Y, and Z are methylene.

17. (Previously Presented) A coating composition according to claim 10 wherein one of R<sub>1</sub> and R<sub>2</sub> is a monovalent radical of linear or branched alk(en)yl groups having 1-20 carbon atoms.

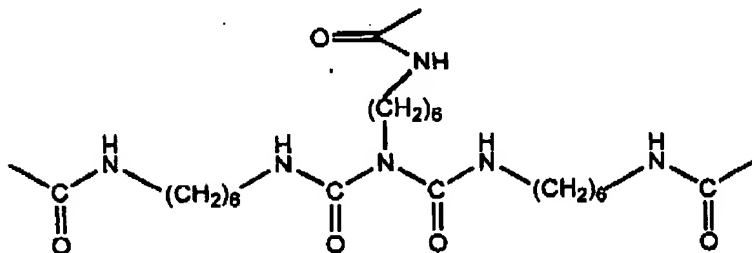
18. (Previously Presented) A coating composition according to claim 17 wherein the monovalent radical is selected from the group of methyl and ethyl.

19. (Previously Presented) A coating composition according to claim 17 wherein the other of R<sub>1</sub> and R<sub>2</sub> is -O-C<sub>1-10</sub>-.

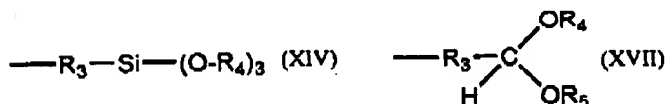
ACO 2603 P1US

20. (Previously Presented) A coating composition according to claim 10 wherein B is derived from an organic polyisocyanate compound.

21. (Previously Presented) A coating composition according to claim 20 wherein the organic polyisocyanate is the biuret of hexamethylene diisocyanate and B has the following chemical structure

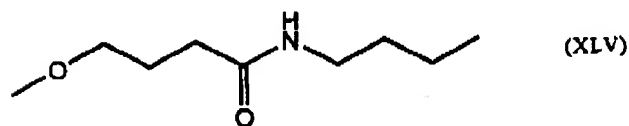
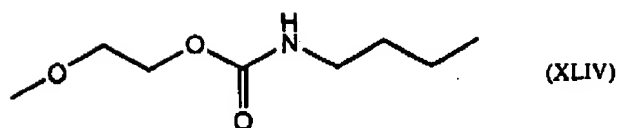


22. (Currently Amended) A coating composition according to claim 10 wherein C is selected from the formulae XIV and or XVII



23. (Previously Presented) A coating composition according to claim 22 wherein R<sub>4</sub> and R<sub>5</sub> are methyl or ethyl and R<sub>3</sub> is a group selected from the following formulae XLIV-XLVI

ACO 2603 P1US



24. (Previously Presented) A process for curing a coating composition according to claim 10 wherein the latent hydroxyl groups of the bicyclo-orthoester groups are deblocked in the presence of water, optionally in the presence of a first catalyst, and reacted with the hydroxyl reactive groups of the first and/or second compound, optionally in the presence of a second catalyst.